AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended)   A string extraction method for an image based on a multiple stroke width patterns matching, wherein modules for processing said method comprise[[s]] a set of stroke width patterns, a unit for computing the similarity between each pixel and each stroke width pattern, a unit for integrating the similarities between each pixel and all stroke width patterns, a unit for binarizing the integrated similarity between each pixel and all stroke width patterns, and a unit for clustering the pixels whose binarized integrated similarities are 1, said method comprises comprising the steps of:

matching stroke width patterns listed by said set of stroke width patterns with a whole input image through said unit for computing the similarity between each pixel and each stroke width pattern for obtaining the similarities between various stroke width patterns in each pixel location;

processing a function operation to the similarities between each pixel and all stroke width patterns through said unit for integrating the similarities between each pixel and all stroke width patterns for integrating and obtaining a numeric result, wherein said numeric result represents the width pattern integrated similarity of said pixel;

integrating said stroke width patterns of each pixel through said unit for

binarizing the integrated similarity between each pixel and all stroke width patterns so as to convert the relatively larger similarities into 1, convert the relatively smaller similarities into 0, wherein the similarities whose values are 1 represent that the pixels corresponding thereto ~~thereof~~ are located in a certain stroke of a certain character within said string; and

clustering adjacent pixels of said stroke width patterns whose binarized integrated similarities are 1 to form a string area through said unit for clustering the pixels whose binarized integrated similarities are 1, and extracting an area of the original input image corresponding to said string area to be a string image.

2. (currently amended)   The string extraction method according to claim 1, wherein said matching between said stroke width pattern and said image is processed by comparing a one-dimensional or a two-dimensional numeric array which represents said stroke width pattern with a pixel gray level array which employs any pixel as a center and has an identical array size to the width pattern for obtaining a similarity between the two arrays to be the similarity between said pixel and said stroke width pattern, ~~for example, a correlation between the two arrays is employed as the similarity between said pixel and said stroke width pattern, or a sum of absolute values of difference of each corresponding elements in both arrays is employed as the dissimilarity between said pixel and said stroke width pattern,~~ and sequentially moving the central pixel of said pixel gray level array which is matched with said stroke width pattern for obtaining the similarities between all pixels and said stroke width pattern.

3. (original)   The string extraction method according to claim 1, wherein said function computing processed by said unit for integrating the similarities between each pixel and all stroke width patterns is capable of computing a maximum from all input parameters, an average from all input parameters, a weighted average from all input parameters, a sum from all input parameters, and a weighted sum from all inputted parameters.

4. (original)   The string extraction method according to claim 1, wherein said integrating processed by said unit for binarizing the integrated similarity between each pixel and all stroke width patterns for converting the relatively larger stroke width pattern integrated similarities into 1 and the relatively smaller integrated similarities into 0 is capable of setting a threshold so that when the stroke width pattern integrated similarity of the pixel is larger than said threshold, the integrated similarity is converted into 1, and when the stroke width pattern integrated similarity of the pixel is smaller than said threshold, the integrated similarity is converted into 0.

5. (currently amended)   The string extraction method according to claim 1, wherein said clustering processed by said unit for clustering the pixels whose binarized integrated similarities are 1 for clustering adjacent pixels of said stroke width patterns whose binarized integrated similarities are 1 together to be a string area is capable of being achieved by several computations like Dilation and Erosion in morphology.

6. (original) The string extraction method according to claim 1, wherein said set of stroke width patterns comprises a one-dimensional horizontal width pattern.

7. (original) The string extraction method according to claim 1, wherein said set of

stroke width patterns comprises a two-dimensional horizontal width pattern.

8. (original) The string extraction method according to claim 1, wherein said set of stroke width patterns comprises a one-dimensional vertical width pattern.

9. (original) The string extraction method according to claim 1, wherein said set of stroke width patterns comprises a two-dimensional vertical width pattern.

10. (original) The string extraction method according to claim 1, wherein said set of stroke width patterns comprises a bevel width pattern.